

<b>Notice of Allowability</b>	<b>Application No.</b>	<b>Applicant(s)</b>
	10/678,856	LIAO ET AL.
	<b>Examiner</b>	<b>Art Unit</b>
	Dawn Garrett	1774

eh

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the application filed October 3, 2003.
2. ☒ The allowed claim(s) is/are 1-11.
3. ☒ The drawings filed on 03 October 2003 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All   b) ☐ Some\*   c) ☐ None   of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  6. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |   |  |
|---|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892)  | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)                                  |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 6. <input checked="" type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date <u>7-2-2004</u> . |
| 3. <input checked="" type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),<br>Paper No./Mail Date <u>10-3-2003</u> | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment  |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material                                | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance                         |
|   | 9. <input type="checkbox"/> Other _____.   |

### EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.
2. Authorization for this examiner's amendment was given in a telephone call with Pamela Crocker on July 1, 2004.
3. The application has been amended as follows:
  - In claim 1, delete "(c)" before "a light-emitting layer" and insert - - (d) - -.
  - In claim 6, delete "including" and insert - - selected from the group consisting of - -.
  - In claim 6, delete "or" and insert - - and - -.
  - In claim 7, delete "including" and insert - - selected from the group consisting of - -.
  - In claim 7, delete "or" and insert - - and - -.
  - In claim 8, delete "including" and insert - - selected from the group consisting of - -.
  - In claim 8, delete "or" and insert - - and - -.
  - In claim 9, delete "including" and insert - - is selected from - -.
  - In claim 10, delete "including" and insert - - is selected from - -.
  - In claim 11, insert - - is - - after "hole-transporting material".

### REASONS FOR ALLOWANCE

4. The following is an examiner's statement of reasons for allowance: The closest prior art is considered to be Shirota et al., Applied Physics Letters, Vol. 65 (7), 15 August 1994 [cited by applicant]. Shirota et al. teaches organic electroluminescent devices comprising double hole transport layers comprised of m-MTDATA and TPD (see page 807, col. 2). Shirota et al. fails to teach a device comprising an elemental metal layer positioned between the two hole transporting layers. The device of present claim 1 is interpreted to require a metal layer formed between two hole transporting material portions. The prior art, either alone or in combination, fails to disclose or to render obvious the very specific metal sub-layer within a hole transporting region as required by the instant claims. Accordingly, claims 1-11 are allowed.

5. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dawn Garrett whose telephone number is 571-272-1523. The examiner can normally be reached Monday through Friday during normal business hours. Please allow the examiner twenty-four hours to return your call.

If reasonable attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rena Dye, can be reached at 571-272-

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3186. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



DAWN GARRETT  
EXAMINER  
ART UNIT 1774

D.G.  
July 1, 2004